#4

DOCKET NO.: ISIS-4804   **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Manoharan, et al.

Serial No.: 09/996,292   **Group Art Unit:** Not yet assigned

Filing Date: 3/13/02   **Examiner:** Not yet assigned

For: Nuclease Resistant Chimeric Oligonucleotides

U. S. Patent and Trademark Office
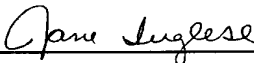Box Sequence, P.O. Box 2327
Arlington, Virginia 22202

STATEMENT TO SUPPORT FILING AND SUBMISSION IN ACCORDANCE WITH 37 CFR §§ 1.821 THROUGH 1.825

☒   I hereby state, in accordance with the requirements of 37 C.F.R. §1.821(f), that the contents of the paper and computer readable copies of the Sequence Listing, submitted in accordance with 37 CFR §1.821(c) and (e), respectively are the same.

☐   I hereby state that the submission filed in accordance with 37 CFR §1.821(g) does not include new matter.

☐   I hereby state that the submission filed in accordance with 37 CFR §1.821(h) does not include new matter or go beyond the disclosure in the international application as filed.

☒   I hereby state that the amendments, made in accordance with 37 CFR §1.825(a), included in the substitute sheet(s) of the Sequence Listing are supported throughout the application, as filed. I hereby state that the substitute sheet(s) of the Sequence Listing does (do) not include new matter.

☒ I hereby state that the substitute copy of the computer readable form, submitted in accordance with 37 CFR §1.825(b), is the same as the amended Sequence Listing.

☐ I hereby state that the substitute copy of the computer readable form, submitted in accordance with 37 CFR §1.825(d), contains identical data to that originally filed.

Date: March 29, 2002

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APR 0 8 2002

ATTACHMENT TO "NOTICE TO COMPLY WITH REQUIREMENTS...SEQUENCE DISCLOSURES"

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be submitted using one of the following methods:

1. Electronically submitted through EFS-Bio
(http://www.uspto.gov/ebc/efs/downloads/documents.htm, EFS Submission User Manual - ePAVE)

2. Mailed to:
   U.S. Patent and Trademark Office
   Box Sequence, P.O. Box 2327
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   Customer Window, Box Sequence
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   Arlington, Virginia 22202

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   Crystal Plaza Two, Lobby, Room 1B03, Box Sequence,
   Arlington, Virginia 22202

Rev. 12/27/2001

**BIOTECHNOLOGY
SYSTEMS
BRANCH**

APR 0 8 2002

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: _09/996,292_

Source: _OIPE_

Date Processed by STIC: _12/6/01_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).
Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

<u>Checker Version 3.0 can be down loaded from the USPTO website at the following address:</u>
http://www.uspto.gov/web/offices/pac/checker

ERROR DETECTED   **SUGGESTED CORRECTION**   SERIAL NUMBER: 09|996, 292

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 _____ Wrapped Nucleics   The number/text at the end of each line "wrapped" down to the next line. This may occur if your file
Wrapped Aminos · was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will
prevent "wrapping."

2 _____ Invalid Line Length   The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 _____ Misaligned Amino   The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers;
Numbering   use space characters, instead.

4 _____ Non-ASCII   The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please
ensure your subsequent submission is saved in ASCII text.

5 _____ Variable Length   Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules,
each n or Xaa can only represent a single residue. Please present the maximum number of each
residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 _____ PatentIn 2.0   A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
"bug"   sequences(s) _____. Normally, PatentIn would automatically generate this section from the
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to
the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for
Artificial or Unknown sequences.

7 _____ Skipped Sequences   Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(OLD RULES)   (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 _____ Skipped Sequences   Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
(NEW RULES)   <210> sequence id number
<400> sequence id number
000

9 _____ Use of n's or Xaa's   Use of n's and/or Xaa's have been detected in the Sequence Listing.
(NEW RULES)   Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 _____ Invalid <213>   Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or
Response   scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or
is Artificial Sequence

11 _✓_ Use of <220>   Sequence(s) -most- missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or
"Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 _____ PatentIn 2.0   Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file,
"bug"   resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence
listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

AMC – Biotechnology Systems Branch – 06/04/2001

OIPE

RAW SEQUENCE LISTING   DATE: 12/06/2001
PATENT APPLICATION: US/09/996,292   TIME: 11:33:45

Input Set : A:\ISIS4804.ST25.txt   **Does Not Comply**
Output Set: N:\CRF3\12062001\I996292.raw   **Corrected Diskette Needed**

```
       3 <110> APPLICANT: Manoharan, Muthiah
       5 <120> TITLE OF INVENTION: Nuclease Resistant Chimeric Oligonucleotides
       7 <130> FILE REFERENCE: ISIS-4804
C-->   9 <140> CURRENT APPLICATION NUMBER: US/09/996,292
C-->   9 <141> CURRENT FILING DATE: 2001-11-28
       9 <160> NUMBER OF SEQ ID NOS: 55
      11 <170> SOFTWARE: PatentIn version 3.1
      13 <210> SEQ ID NO: 1
      14 <211> LENGTH: 20
      15 <212> TYPE: DNA
      16 <213> ORGANISM: Artificial Sequence
      18 <220> FEATURE:
      19 <223> OTHER INFORMATION: Novel Sequence
      21 <220> FEATURE:
      22 <221> NAME/KEY: misc_feature
      23 <222> LOCATION: (1)..(20)
      24 <223> OTHER INFORMATION: All P=S
      27 <220> FEATURE:
      28 <221> NAME/KEY: misc_feature
      29 <222> LOCATION: (1)..(1)
      30 <223> OTHER INFORMATION: N= L-Thymidine
      33 <220> FEATURE:
      34 <221> NAME/KEY: misc_feature
      35 <222> LOCATION: (20)..(20)
      36 <223> OTHER INFORMATION: N= L-Thymidine
      39 <400> SEQUENCE: 1
W-->  40 ngcatccccc aggccaccan                                          20
      43 <210> SEQ ID NO: 2
      44 <211> LENGTH: 17
      45 <212> TYPE: DNA
      46 <213> ORGANISM: Artificial Sequence
      48 <220> FEATURE:
      49 <223> OTHER INFORMATION: Novel Sequence
      51 <220> FEATURE:
      52 <221> NAME/KEY: misc_feature
      53 <222> LOCATION: (1)..(17)
      54 <223> OTHER INFORMATION: All P=S
      57 <220> FEATURE:
      58 <221> NAME/KEY: misc_feature
      59 <222> LOCATION: (1)..(1)
      60 <223> OTHER INFORMATION: N= L-Thymidine
      63 <220> FEATURE:
      64 <221> NAME/KEY: misc_feature
      65 <222> LOCATION: (2)..(3)
      66 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
      69 <220> FEATURE:
      70 <221> NAME/KEY: misc_feature
```

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

— invalid response, see error summary sheet, item 11
(must explain source of genetic material)

RAW SEQUENCE LISTING   DATE: 12/06/2001
PATENT APPLICATION: US/09/996,292   TIME: 11:33:45

Input Set : A:\ISIS4804.ST25.txt
Output Set: N:\CRF3\12062001\I996292.raw

```
 71 <222> LOCATION: (15)..(15)
 72 <223> OTHER INFORMATION: N= 2'-O-MOE A
 75 <220> FEATURE:
 76 <221> NAME/KEY: misc_feature
 77 <222> LOCATION: (16)..(16)
 78 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
 81 <220> FEATURE:
 82 <221> NAME/KEY: misc_feature
 83 <222> LOCATION: (17)..(17)
 84 <223> OTHER INFORMATION: N= L-Thymidine
 87 <400> SEQUENCE: 2
```

17

W--> ` 88 nnncgctgtg atgcnnn`

```
 91 <210> SEQ ID NO: 3
 92 <211> LENGTH: 20
 93 <212> TYPE: DNA
 94 <213> ORGANISM: Artificial Sequence
 96 <220> FEATURE:
 97 <223> OTHER INFORMATION: Novel Sequence
 99 <220> FEATURE:
100 <221> NAME/KEY: misc_feature
101 <222> LOCATION: (1)..(20)
102 <223> OTHER INFORMATION: All P=S
105 <220> FEATURE:
106 <221> NAME/KEY: misc_feature
107 <222> LOCATION: (1)..(1)
108 <223> OTHER INFORMATION: N= L-Thymidine
111 <220> FEATURE:
112 <221> NAME/KEY: misc_feature
113 <222> LOCATION: (2)..(3)
114 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
117 <220> FEATURE:
118 <221> NAME/KEY: misc_feature
119 <222> LOCATION: (13)..(14)
120 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
123 <220> FEATURE:
124 <221> NAME/KEY: misc_feature
125 <222> LOCATION: (15)..(15)
126 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
129 <220> FEATURE:
130 <221> NAME/KEY: misc_feature
131 <222> LOCATION: (16)..(16)
132 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
135 <220> FEATURE:
136 <221> NAME/KEY: misc_feature
137 <222> LOCATION: (17)..(17)
138 <223> OTHER INFORMATION: N= 2'-O-MOE A
141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (18)..(19)
```

RAW SEQUENCE LISTING   DATE: 12/06/2001
PATENT APPLICATION: US/09/996,292   TIME: 11:33:45

Input Set : A:\ISIS4804.ST25.txt
Output Set: N:\CRF3\12062001\I996292.raw

```
144 <223> OTHER INFORMATION: N= 2'-O-MOE G
147 <220> FEATURE:
148 <221> NAME/KEY: misc_feature
149 <222> LOCATION: (20)..(20)
150 <223> OTHER INFORMATION: N= L-Thymidine
153 <400> SEQUENCE: 3
```
W--> **154 nnngtcatcg ctnnnnnnnn**   20
```
157 <210> SEQ ID NO: 4
158 <211> LENGTH: 20
159 <212> TYPE: DNA
160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: (Novel Sequence)
165 <220> FEATURE:
166 <221> NAME/KEY: misc_feature
167 <222> LOCATION: (1)..(20)
168 <223> OTHER INFORMATION: All P=S
171 <400> SEQUENCE: 4
```
                                            20
```
172 tgcatccccc aggccaccat
175 <210> SEQ ID NO: 5
176 <211> LENGTH: 20
177 <212> TYPE: DNA
178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: (Novel Sequence)
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature
185 <222> LOCATION: (1)..(20)
186 <223> OTHER INFORMATION: All P=S
189 <220> FEATURE:
190 <221> NAME/KEY: misc_feature
191 <222> LOCATION: (1)..(1)
192 <223> OTHER INFORMATION: N= L-Thymidine
195 <220> FEATURE:
196 <221> NAME/KEY: misc_feature
197 <222> LOCATION: (20)..(20)
198 <223> OTHER INFORMATION: N= L-Thymidine
201 <400> SEQUENCE: 5
```
W--> **202 ngcatccccc aggccaccan**   20
```
205 <210> SEQ ID NO: 6
206 <211> LENGTH: 17
207 <212> TYPE: DNA
208 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: (Novel Sequence)
213 <220> FEATURE:
214 <221> NAME/KEY: misc_feature
215 <222> LOCATION: (1)..(17)
216 <223> OTHER INFORMATION: All P=S
```

RAW SEQUENCE LISTING   DATE: 12/06/2001
PATENT APPLICATION: US/09/996,292   TIME: 11:33:45

Input Set : A:\ISIS4804.ST25.txt
Output Set: N:\CRF3\12062001\I996292.raw

```
219 <400> SEQUENCE: 6
220 tcccgctgtg atgcatt                                      17
223 <210> SEQ ID NO: 7
224 <211> LENGTH: 17
225 <212> TYPE: DNA
226 <213> ORGANISM: Artificial Sequence
228 <220> FEATURE:
229 <223> OTHER INFORMATION: Novel Sequence
231 <220> FEATURE:
232 <221> NAME/KEY: misc_feature
233 <222> LOCATION: (1)..(17)
234 <223> OTHER INFORMATION: All P=S
237 <220> FEATURE:
238 <221> NAME/KEY: misc_feature
239 <222> LOCATION: (1)..(1)
240 <223> OTHER INFORMATION: N= L-Thymidine
243 <220> FEATURE:
244 <221> NAME/KEY: misc_feature
245 <222> LOCATION: (2)..(3)
246 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
249 <220> FEATURE:
250 <221> NAME/KEY: misc_feature
251 <222> LOCATION: (15)..(15)
252 <223> OTHER INFORMATION: N= 2'-O-MOE A
255 <220> FEATURE:
256 <221> NAME/KEY: misc_feature
257 <222> LOCATION: (16)..(16)
258 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
261 <220> FEATURE:
262 <221> NAME/KEY: misc_feature
263 <222> LOCATION: (17)..(17)
264 <223> OTHER INFORMATION: N= L-Thymidine
267 <400> SEQUENCE: 7                                       17
W--> 268 nnncgctgtg atgcnnn
271 <210> SEQ ID NO: 8
272 <211> LENGTH: 20
273 <212> TYPE: DNA
274 <213> ORGANISM: Artificial Sequence
276 <220> FEATURE:
277 <223> OTHER INFORMATION: Novel Sequence
279 <220> FEATURE:
280 <221> NAME/KEY: misc_feature
281 <222> LOCATION: (1)..(20)
282 <223> OTHER INFORMATION: All P=S
285 <220> FEATURE:
286 <221> NAME/KEY: misc_feature
287 <222> LOCATION: (1)..(1)
288 <223> OTHER INFORMATION: N= L-Cytidine
291 <220> FEATURE:
```

RAW SEQUENCE LISTING   DATE: 12/06/2001
PATENT APPLICATION: US/09/996,292   TIME: 11:33:45

Input Set : A:\ISIS4804.ST25.txt
Output Set: N:\CRF3\12062001\I996292.raw

```
292 <221> NAME/KEY: misc_feature
293 <222> LOCATION: (2)..(2)
294 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
297 <220> FEATURE:
298 <221> NAME/KEY: misc_feature
299 <222> LOCATION: (3)..(3)
300 <223> OTHER INFORMATION: N= 2'-O-MOE A
303 <220> FEATURE:
304 <221> NAME/KEY: misc_feature
305 <222> LOCATION: (4)..(4)
306 <223> OTHER INFORMATION: N= 2'-O-MOE G
309 <220> FEATURE:
310 <221> NAME/KEY: misc_feature
311 <222> LOCATION: (5)..(5)
312 <223> OTHER INFORMATION: N= 2'-O-MOE A
315 <220> FEATURE:
316 <221> NAME/KEY: misc_feature
317 <222> LOCATION: (16)..(16)
318 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
321 <220> FEATURE:
322 <221> NAME/KEY: misc_feature
323 <222> LOCATION: (17)..(17)
324 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
327 <220> FEATURE:
328 <221> NAME/KEY: misc_feature
329 <222> LOCATION: (18)..(18)
330 <223> OTHER INFORMATION: N= 2'-O-MOE G
333 <220> FEATURE:
334 <221> NAME/KEY: misc_feature
335 <222> LOCATION: (19)..(19)
336 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
339 <220> FEATURE:
340 <221> NAME/KEY: misc_feature
341 <222> LOCATION: (20)..(20)
342 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
345 <400> SEQUENCE: 8
```

W--> 346 nnnnnttcca cactcnnnnn   20

```
349 <210> SEQ ID NO: 9
350 <211> LENGTH: 20
351 <212> TYPE: DNA
352 <213> ORGANISM: Artificial Sequence
354 <220> FEATURE:
355 <223> OTHER INFORMATION: Novel Sequence
357 <220> FEATURE:
358 <221> NAME/KEY: misc_feature
359 <222> LOCATION: (1)..(20)
360 <223> OTHER INFORMATION: All P=S
363 <220> FEATURE:
364 <221> NAME/KEY: misc_feature
```

VERIFICATION SUMMARY   DATE: 12/06/2001
PATENT APPLICATION: US/09/996,292   TIME: 11:33:46

Input Set. : A:\ISIS4804.ST25.txt
Output Set: N:\CRF3\12062001\I996292.raw

```
L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:40 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:88 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:268 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:568 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:688 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:736 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:868 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:934 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:1012 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:1078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:1234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:1312 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:1396 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:1462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:1534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:1613 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:1693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:1772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:1852 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:1930 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:2008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:2086 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:2166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:2184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:2202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:2220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:2238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37
L:2262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38
L:2286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39
L:2322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41
L:2364 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:2388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44
L:2412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:2436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46
L:2460 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47
L:2484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48
L:2508 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49
L:2538 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51
```

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/996,292

DATE: 12/06/2001
TIME: 11:33:46

Input Set : **A:\ISIS4804.ST25.txt**
Output Set: **N:\CRF3\12062001\I996292.raw**

```
L:2556 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52
L:2580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53
L:2598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54
L:2616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55
```